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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,585

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Larry Lapanashvili

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EXAMINER

LAVERT, NICOLE F

ART UNIT

PAPER NUMBER

3762

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,585	<b>Applicant(s)</b> LAPANASHVILI ET AL.	
	<b>Examiner</b> NICOLE F. LAVERT	<b>Art Unit</b> 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-24 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-24 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/2/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 18-24** are rejected under 35 U.S.C. 102(b) as being anticipated by Lapanashvili et al. (WO 01/13990).

For **claim 18**, Lapanashvili et al. discloses, an electrotherapy apparatus comprising a sensor for detecting periodically recurring signal peaks, a processor for deriving from said periodically recurring signal peaks a time delay corresponding to approximately the end of the T-wave, a trigger system or a circuit initiated by an output signal of said processor or embodied within said processor for applying electrical stimulations to one or more active electrodes provided on the said person at a time related to the end of said time delay [(pp 3, para 4) & (pp 25, para 2-5)], the processor being adapted: a) to make a determination for successive pairs of signal peaks of a value corresponding to the time between said successive pairs of signal peaks and thus to the said person's heart rate (pp 19, para 4), b) to compare said value with maximum and minimum permissible technical limits permitted by the apparatus and/or c) to compare said value with maximum and minimum permissible selected limits, (pp 14, para 2) d) to determine whether each said value exceeds a preceding value or a preceding value averaged over a plurality of heart beats by more than a defined amount, e) to determine whether each said value is less

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than a preceding value or a preceding value averaged over a plurality of heart beats by more than a defined amount [(pp 41, para 5) & (pp 42, para 1-4)], f) to trigger said trigger system or circuit (pp 25, para 3-5) only when the comparisons b) and/or c) are favourable and the determinations d) and e) show that the said value does not exceed the preceding value or the preceding average value by more than the defined amount and is not less than the preceding value or the preceding value by more than the defined amount [(pp 41, para 5) & (pp 42, para 1-4)], g) to close a measurement window for said sensor (pp 60, para 2) once a determination is made that the comparisons b) and/or c) are favourable and that the determinations d) and e) show that the said value does not exceed the preceding value or the preceding average value by more than the defined amount and is not less than the preceding value or the preceding average value by more than the defined amount [(pp 41, para 5) & (pp 42, para 1-4)], said measurement window being closed prior to triggering said trigger system [(pp 60, para 1-2) & (pp 61, para 1)], h) to calculate in addition to said time delay a maximum stimulation length [(pp 61, para 4) & (pp 61, para 1)], i) to check that the derived value of said time delay is greater than or equal to a delay time equivalent to a trigger delay plus a calculation delay [(pp 61, para 4) & (pp 61, para 1)], said trigger delay being the delay between initiation of a trigger signal delivered by said sensor corresponding to the detection of a first signal peak and the time this signal reaches the processor (pp 25, para 2-5) and the calculation delay being the time required by the processor to derive the delay [(pp 61, para 4) & (pp 62, para 1)], j) to check that the derived time delay is less than or equal to said maximum stimulation length [(pp 61, para 4) & (pp 61, para 1)], and to revise said derived time delay if necessary so that [(pp 25, para 4-5) & (pp 61, para 4)] it fulfills the two conditions derived time delay greater than or equal to the trigger delay plus the calculation delay

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and derived time delay less than or equal to the maximum stimulation length [(pp 61, para 4) & (pp 61, para 1)], k) to calculate a maximum duration equal to the maximum stimulation length minus the time delay [(pp 62, para 4), (pp 63, para 4) & (pp 64, para 3)] l) to calculate a duration of said electrical stimulation and a maximum duration value equal to said maximum stimulation length minus said derived time delay [(pp 62, para 4), (pp 63, para 4) & (pp 64, para 3)] and to check whether said calculated duration is less than or equal to said maximum duration and if not to adapt it so that it is less than or equal to said maximum duration [(pp 63, para 2-3) & (pp 64, para 4)], m) to calculate an open measurement window time equal to said derived time delay, or said adapted delay, if said delay has been adapted [(pp 61, para 1-4) & (pp 63, para 3)], plus said duration or said adapted duration, if said duration has been adapted [(pp 62, para 4) & (pp 63, para 3)], plus a safety margin (pp 63, para 5), and n) to send an output signal to said trigger system during said measurement window and open said measurement window at the calculated time permitting the recognition of the detection of a further peak of said electrocardiogram by said sensor [(pp 60, para 1-2) & (pp 61, para 1-2)].

In reference to **claim 19**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 18 (pp 3, para 4), wherein said processor is adapted to repeat the sequence of steps based on the new R-R value (pp 25, para 1-3).

In reference to **claim 20**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 19 (pp 3, para 4), wherein, if a further signal peak is not detected after opening of said measurement window within an expected time calculated by said processor based on a preceding value or a preceding average value, no trigger signal is transmitted and

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transmission of a trigger signal and thus stimulation is inhibited until further signal peaks are detected within expected limits (pp 59-pp 61, para 1-2).

In reference to **claim 21**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 18 (pp 3, para 4), wherein, instead of using a value of the preceding time between signal peaks as said value, an average is formed from a plurality of past values (pp 63, para 4).

In reference to **claim 22**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 21 (pp 3, para 4), wherein the processor is adapted to include in said plurality of past values only those values which lie within a range less than the preceding measured value plus a predefined positive deviation and more than a value corresponding to the preceding measured value less a predefined deviation [(pp 61, para 4) & (pp 62, para 1-3)].

In reference to **claim 23**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 18 (pp 3, para 4), wherein the apparatus has a plurality of channels for applying electrical stimulations to one or more active electrodes provided on the said person and in that for each said channel [(pp 16, para 2) & (pp 24, para 4)] a respective offset value is added to said delay (pp 62, para 1-2).

In reference to **claim 24**, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 21 (pp 3, para 4), wherein the apparatus has a plurality of channels for applying electrical stimulations to one or more active electrodes provided on the said person and in that for each said channel [(pp 16, para 2) & (pp 24, para 4)] a respective offset value is added to said delay (pp 62, para 1-2).

In regards to claim 38, Lapanashvili et al. discloses, an electrotherapy apparatus in accordance with claim 18, (pp 3, para 4) wherein the signal peaks are R-R peaks of an electrocardiogram of a person (pp 4, para 4).

### ***Response to Arguments***

1. Applicant's arguments filed 30 April 2008 have been fully considered but they are not persuasive. The Examiner has maintained the original rejection sent out on 27 December 2007. The Applicant argues that the Lapanashvili reference, WO 2001/13990, is not an effective prior art reference against the present application because the filing date of Lapanashvili is August 14, 2000, which does not beat the priority date of August 20, 1999 set forth by the application 09/378,181 (see ADS).

2. Applicant's arguments, filed 30 April 2008, with respect to the objections of the drawings and specification have been fully considered and are persuasive. Therefore the above objections of the drawings and specification have been withdrawn.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE F. LAVERT whose telephone number is (571)270-5040. The examiner can normally be reached on M-F 7:30-5:00p.m. (Alt. Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George R Evanisko/  
Primary Examiner, Art Unit 3762

/Nicole F. LaVert/  
Examiner, Art Unit 3762



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